Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

transformed into sac-like inflated bodies, closely resembling the lip, but differing from it in being smaller with wider and rounder openings, and in not having the edges rolled in. The coloring of these side petals was like that of the lip, pinkish with lines of deep red. The tip of the lip was pushed in upon itself until it was half inverted, partly filling the cavity of the lip. The lip was also flattened and broadened more than usual. The whole plant was rather small, but not unusually so. The other floral organs were normal. CHARLES A. DAVIS.

ALMA COLLEGE, ALMA, MICH., July, 1893.

Index to Recent Literature Relating to American Botany.

Azolla filiculoides.—On the Development of. Douglas H. Campbell (Ann. Bot. vii. 155–187; three plates).

Azolla.—Some Notes on. Douglas H. Campbell (Zoë, iii. 340–343).

Botanical Notes from Texas.—VIII.–IX. E. N. Plank (Gard. and For. vi. pp. 272; 283).

Mention is made of *Opuntia Engelmanni, O. leptocaulis, Juglans rupestris, Leucophyllum Texanum, Condalia obovata, Gaillardia pulchella, Rubus trivialis* and others.

Alluding to cypress-trees, the author suggests that the so-called cypress-knees are probably only abortive attempts of the species to reproduce itself from its roots. At Lake Charles, La., the knees of some small cypress-trees were observed bearing twigs and leaves.

California Plants.—Notes on: IV. S. B. Parish (Zoë, iii. 352-354).

Remarks on *Calochortus venustus* and *Lilæa subulata.*

Caryopsis.—On the Development of the. Rodney H. True (Bot. Gaz. xviii. 212; with three plates).

Comarum palustre. (Meehan's Month. iii. 97).

With illustration of the Marsh Cinquefoil.

Contribution to the Biology of the Organism causing Leguminous Tubercles. Geo. F. Atkinson (Bot. Gaz. xviii. 226, 257).

Corrections and Additions to Moses Craig's Catalogue of the Uncultivated Flowering Plants Growing on the Ohio State University Grounds. W. A. Kellermann and W. C. Werner (Bull. No. 3 Ohio Agric. Ex. Sta. 1893).

Difference between the common Salt-wort and the Russian Thistle. L. H. Dewey (Bot. Gaz. xviii. 275).

A comparison of the characters of *Salsola Kali,* L. and the var. *Tragus,* D. C.

Dioon pectinatum (Gard. Chron. xiii. 718, illustrated).

Europaeischen Uredineen auf der Hochebene von Quito—Ueber das Vorkommen von. G. von Lagerheim (Bot. Centralbl. liv. 324).

Puccinia coronata and *P. graminis* are recorded as occurring in Ecuador and *Fusarium uredinis* is described as new.

Fertilization—Notes on. Alice J. Merritt (Zoë, iii. 311, 312).

Notes on pollination of *Trichostema lanceolatum* and *Zauschneria Californica.*

Flora of Denver, Colorado—A popular. Alice Eastwood (Zoë Pub. Co., San Francisco, no date).

This little Flora, or more properly cheeklist, enumerates, with short notes, 484 Phænogamous plants growing near Denver.

Flora of Sonora—Notes concerning the. T. S. Brandegee (Zoë, iii. 344–349).

Flowers and Insects—XI. Charles Robertson (Bot. Gaz. xviii. 267–274).

Notes on the insects observed visiting *Stellaria media, Malva rotundifolia, Abutilon Avicennæ, Hibiscus lasiocarpus, H. Trionum, Geranium Carolinianum, Oxalis violacea* and *Melilotus alba.*

Fungi—New Californian. J. B. Ellis and B. M. Everhart (Erythea, i. 145–147).

Descriptions of new species in the genera *Dimerosporium, Metasphæria, Eutypella, Pseudovalsa, Phyllosticta* and *Cercospora.*

General Notes of a Trip through Southeastern Utah. Alice Eastwood (Zoë, iii. 354–361).

Grasses of the Pacific Slope, including Alaska and the Adjacent Islands. Part II. Geo. Vasey (U. S. Dept. Agric., Div. of Botany, Bull. No. 13, pp. 50, 50 plates).

The second part of this beautifully illustrated work consists of plates and descriptions of the following grasses: *Agropyrum divergens, Agrostis foliosa, A. microphylla, Arctagrostis latifolia, Atropis Lemmoni, Bromus Orcuttianus, B. Suksdorfii, Calamagrostis*

arctica, *C. neglecta*, *C. sylvestris*, var. *longifolia*, *Coleanthus subtilis*, *Colpodium pendulinum*, *Danthonia Californica*, *Deschampsia elongata*, *D. holciformis*, *Dupontia Fischeri*, *D. psilosantha*, var. *flavescens*, *Elymus arenarius*, *E. condensatus*, *E. triticoides*, *Festuca microstachys*, *F. subulata*, *F. viridula*, *Glyceria pauciflora*, *Hystrix Californica*, *Melica bromoides*, *M. bulbosa*, *M. frutescens*, *M. fugax*, *M. Harfordi*, *M. stricta*, *Phippsia algida*, *Pleuropogon Californicum*, *P. refractum*, *Poa arctica*, *P. argentea*, *P. Bolanderi*, *P. Californica*, *P. confinis*, *P. Douglasii*, *P. glumaris*, *P. Howellii*, *P. Kelloggii*, *P. macrantha*, *P. nervosa*, *P. pulchella*, var. *major*, *P. purpurascens*, *P. Thurberiana*, *P. unilateralis*, *Trisetum barbatum* and *Uniola Palmeri*. The descriptions are mainly drawn up by Mr. L. H. Dewey.

Gloiocephala epiphylla. Geo. Massee (Grevillea, xxi. 33, 34, illustrated).

A new genus and species from Jamaica.

Hieracium Pilosella (Gard. and For. vi. 290).

The record of this little European species found by Miss Mary Hunnewell growing spontaneously on roadsides at Wellesley, Mass.

Index Hepaticarum, Part I.—Bibliography. Lucien Marcus Underwood. (Mem. Torr. Bot. Club, iv. pp. 1–91, June, 1893).

This is the first of a series of three papers, the second of which is to be an index to all the species described, with a reference to each to the genera recognized at the present time; and the third a classified arrangement of the species to show our present knowledge of their geographic distribution. Besides the 84 pages of authors and titles in the first part, there is a synoptic index to the bibliography, in which Germany leads the list in the number of systematic papers. It is hoped that the further parts will not be long delayed.

Key to Kansas Trees in their Winter Condition. A. S. Hitchcock (Eighth Bien. Rep. Kan. St. Bd. Agr. 1893).

Mamillaria Notesteinii. F. N. Notestein (Zoë, iii. 349).

An emendment and enlargement of Dr. Britton's description of this species, drawn from new material.

Mariposa County as a Botanical District—IV. J. W. Congdon (Zoë, iii. 314–325).

This part of Mr. Congdon's paper deals with the subalpine region, and enumerates 295 species inhabiting it.

Mentzelia affinis as a Field Weed. Edward L. Greene (Erythea, i. 158).

Museæ.—A Synopsis of the Genera and Species of. J. G. Baker (Ann. Bot. vii. 189–222).

This is a very important contribution to our knowledge of the Banana Family. The genera are *Heliconia* with 29 species, all of Tropical America, *H. platystachys* of the West Indes and Guatemala being described as new, *Strelitzia* with 4 species, all of Cape Colony, *Ravenala* with 2 species, one Madagascan, the other of Northern South America, and *Musa,* with 32 species, all of the Old World. The banana, *M. Sapientium* in its wild seed-bearing form (*M. seminifera,* Lour.), Mr. Baker concludes probably extends from Behar and the Eastern Himalayas to the Philippine and Malay Archipelagos. N. L. B.

North American Sileneæ and Polycarpæ.—The. B. L. Robinson (Proc. Amer. Acad. Arts and Sci., xxviii. 124–155, reprint; Contrib. Gray Herb., New Series, No. V.).

This is a treatment of the genera and species of these tribes of the Caryophyllaceæ, preliminary to their description in the continuation of Dr. Asa Gray's Synoptical Flora of North America. It includes *Dianthus* with 5 species, *Gysophila* with 2, *Tunica* with 1, *Saponaria* with 2, *Silene* with 50, two of them described as new, *Lychnis* with 15, *L. Tayloræ* being a new one from Arctic America. *Agrostemma* with 1, *Drymaria* with 5, *Polycarpon* with 2, *Lœflingia* with 3 and *Stipulicida* with 1 species. The arrangement and method of the paper is much the same as that followed by Dr. Gray in a similar work. The citation of genera is carried back to the first edition of Linnæus' Genera Plantarum (1737) in opposition to the agreements reached at Rochester and Genoa, where the first edition of the Species Plantarum (1753) was decided upon as best. The original authors of species are not cited in parenthesis, which is also contrary to the Rochester code. We append a few notes on the plants described by Dr. Robinson.

Dianthus prolifer, L., has been found as far west as Cleveland, Ohio (H. C. Beardslee, 1891). *Dianthus Armeria*, L., Lynchburg, Marion and Eggleston's Springs, Va.; *Tunica Saxifraga* (L.) Scop., Flushing, Long Island (Schrenk, 1879); *Gypsophila muralis*, L., Staten Island, Deerfield, Mass. (Miss L. R. Heller, 1886); Elmwood, R. I. (J. F. Collins, 1890–92). *Silene Gallica*, L. Sp. Pl. 417, stands on the page of that work after the one where *S. Anglica* is published; *Silene Cucubalus*, Wibel (1799), was first published by Linnæus as *Cucubalus Behen* in 1753, but there is a *Silene Behen*, also of Linnæus; it was next published as *Behen vulgaris* by Mœnch (Meth. 709, 1794), and should be cited *S. vulgaris* (Mœnch) Garcke, Fl. Deutsch, Ed. 9, 64 (1869); the plant is exceedingly abundant in Northern New Jersey, and extends to Tennessee (Scribner, 1890); the name *Silene alba*, Muhl. Cat. 45 (1813), known to apply to *Cucubalus niveus*, Nutt. (1818), is rejected as "seminudum;" from this we infer that Dr. Robinson would reject all the names in Muhlenberg's Catologue, for this is as well identified as any of them; in this view a large number of familiar names would have to be abandoned; *Silene stellata* (L.) Ait., extends to North Carolina (Small, 1892, Heller, 1890); *Silene nutans*, L., is an addition to our adventive flora, found on Mt. Desert; *Silene Pennsylvanica*, Michx. (1803), is antedated by *S. Caroliniana*, Walt. (1788), and the plants are the same (vid. BULLETIN xviii. 268); *Silene Menziesii*, Hook., and *S. Scouleri*, extend eastward to Nebraska (Williams, 1890, Webber, 1889); *Lœflingia Texana*, Hook., extends to Nebraska (Webber, 1889).

Silene incompta, Gray, is reduced *S. Bridgesii*, Rohrb., *S. plicata*, Wats., to *S. Thurberi*, Wats., *Lychnis Californica*, Wats., becomes *S. Watsoni*, Robinson, *S. Macounii* and *S. monantha*, Wats., are referred to *S. Douglasii* as varieties. N. L. B.

Notholæna tenera.—A new Station for. S. B. Parish (Erythea, i. 153–154).

Novitates occidentales.—IV. Edward L. Greene (Erythea, i. 147–153).

Descriptions of new species in the genera *Streptanthus*, *Cardamine*, *Sidalcea*, *Ceanothus*, *Eriophyllum*, *Erigeron*, *Eupatorium*, *Apocynum*, *Asclepias*, *Muilla*, *Calochortus* and *Fritillaria*.

Preliminary Contribution to Our Knowledge of the Cretaceous Formation on Long Island and Eastward. Arthur Hollick (Trans. N. Y. Acad. Sci. xii. 222–237, Pl. V.–VII.).

This paper follows a previous one by the same author on "Plant Distribution as a Factor in the Interpretation of Geological Phenomena, with Special Reference to Long Island and Vicinity," and may be considered as a demonstration of some of the points which were previously merely surmised as probable.

An historical sketch and bibliography of early researches in the cretaceous of Eastern North America is given, after which the author gives the results of his personal investigations of the plant remains found on the north shore of Long Island, notably in the vicinity of Glen Cove. The results obtained prove the existence there of cretaceous strata beyond doubt, and give indications of their former existence at other points along the north shore of the Island. The author is able to identify many of the fossil leaves with those previously found in the cretaceous of New Jersey, Staten Island and Martha's Vineyard.

The following are figured: *Liriodendron simplex*, Newb.; *Laurus Plutonia*, Heer; *Myrtophyllum* (*Eucalyptus ?*) *Geinitzi*, Heer; *Sapindus Morrisoni*, Lesq.; *Dalbergia Rinkiana*, Heer.; *Magnolia Capellini*, Heer.; *M. speciosa*, Heer.; *Sassafras* (*Araliopsis*) *acutilobum*, Lesq., and *Diospyros primæva*, Heer. N. L. B.

Plant Distribution as a Factor in the Interpretation of Geological Phenomena, with Special Reference to Long Island and Vicinity. Arthur Hollick (Trans. N. Y. Acad. Sci., xii. 189–202).

The author discusses the occurrence of the pine barren flora on Staten Island, Long Island, Nantucket and in Southeastern New England, and endeavors to reason how it came to the latter region. As no trace of it is to be found on the mainland between New Jersey and Rhode Island, the conclusion is reached that it must have spread from Long Island. It is at this point that the geological part of the discussion enters, and from the conditions now existing it is inferred that the land connection must have existed between Long Island and Southeastern New England in recent geological times, thus affording a land area over which the flora migrated from the southward on the retreat of the continental glacier. N. L. B.

Quercus densiflora—Extended Range of. Barclay Hazard (Erythea, i. 159, 160).

Remarks on the Genoa Congress. Otto Kuntze (Erythea, i. 155–157).

Report of Botanical Section. (Proc. Rochester Acad. Sci. ii. 176.)

Among other interesting items, *Rhododendron maximum* is reported from Penfield, N. Y., a station north of its usual habitat.

Report of the Botanist—Seventh Annual. Charles E. Bessey (Nebraska Sta. Bd. Agric., 1893).

Notes on and illustrations of the weeds of Nebraska. A preliminary description of the native and introduced grasses of Nebraska enumerates 154 species, many of them also illustrated.

Rudbeckia hirta—Variation in Ray-flowers in. Florence Beckwith (Proc. Rochester Acad. Sci. ii. 170, illustrated).

Saprolegniaceæ of the United States with Notes on other Species.— J. E. Humphrey (Trans. Amer. Phil. Soc. Reprint.)

This monograph of eighty-four pages and seven full quarto plates is a valuable contribution to the previously very limited knowledge of an obscure but very interesting, important and peculiar group of Fungi. The subjects of non-sexual reproduction and sexual reproduction receive full treatment, the various points being brought out with the aid of superior lithographs of the stuctures studied. Following the chapter upon occurrence and distribution of the Saprolegniaceæ is the systematic portion. There is a key to the genera, and under each genus a key to the species. Eleven species, for example, are given of *Saprolegnia*; *S. Treleaseana* being new; fifteen of *Achlya*, with the following described for the first time: *A. Americana*, *A. megasperma* and *A. papillosa*. A full bibliography concludes the work. B. D. H.

Sedum radiatum—Note on. Thomas Howell (Erythea, i. 144).

Senecio aureus—The Embryo-sac and Embryo of. D. M. Mottier (Bot. Gaz. xxiii. 245–253; three plates).

Shrubs of Northeastern America. Charles S. Newhall (G. P. Putnam's Sons, New York, 1893, 8vo, 249 pages, illustrated).

This is the second of the series planned by the author, for presenting in a popular way handbooks of our native woody plants. The first treated of the trees, and the third is to present the vines.

In all the volumes the illustrations are by the author, and though imperfect and suggestive rather than accurate, yet they will undoubtedly be helpful, and add to the attractiveness of the book. We regret that justice has not been done to several of our most attractive shrubs, such as the Laurels. All the drawings are natural size, however, and occupy full pages. The text has broad margins and large type. Besides the descriptions of each species, historical and economic notes occur here and there. Three guides or keys will enable the beginner to analyze any shrub by leaf, fruit or flower, and a chapter explanatory of the terms is also given. The author also advocates in his preface the planting of native shrubs, advice which will be heartily endorsed by all lovers of our beautiful wild tangles and copses; but the list given as worthy of cultivation seems meagre and lacking in some of the most ornamental. E. G. B.

Stomata and Palisade Cells of Leaves. F. C. Stewart (Proc. Iowa Acad. Sci., 1892, 80–84.

Symbiosis and Mutualism in Lichens. Roscoe Pound (Am. Nat. xxvii. 509).

Trematocarpus—The Genus. A. Zahlbruckner and W. B. Hemsley (Ann. Bot. vii. 289, 290).

This is an interesting discussion of the nature of certain orifices in the capsule-wall of *Lobelia macrostachys*, H. and A., on which plant Dr. Zahlbruckner founded his genus *Trematocarpus*. In alluding to the proposed genus in a former number of " Annals of Botany," Mr. Hemsley maintained that the orifices, taken by Dr. Zahlbruckner as pores of dehiscence, were actually the work of insects. Dr. Zahlbruckner now defends his original position, but Mr. Hemsley still maintains the opinion that the pores are not normal, and Dr. Stapf is to investigate the anatomy of the capsule. The further developments of the investigations are awaited with interest. N. L. B.

Trichomanes Petersii. (Meehan's Month. iii. 81, with colored illustration.)

Tsuga Pattoniana (Gardn. Chron. xiii. 659, with figure).

Two New Plants from Washington. B. L. Robinson and H. E. Seaton. (Bot. Gaz. xviii. 237).

Allium Hendersoni and *Calochortus ciliatus* are described as new.

Undescribed Plants from Guatemala. John Donnell Smith. (Bot. Gaz. xviii. 197, with 3 plates). Species of *Capparis*, *Xylosma*, *Stigmatophyllon*, *Oxalis*, *Wimmeria*, *Rubus*, *Mallostoma*, *Hoffmannia*, *Guettarda*, *Parathesis*, *Ardisia*, *Tabernæmontana*, *Philibertia*, *Asclepias*, *Dictyanthus*, *Fimbristemma*, *Utricularia*, *Adenocalymna* (*?*), *Aphelandra*, *Tradescantia* and *Tinantia* are described as new.

Uredineæ and Ustilagineæ.—Description of new Species of—I. P. Dietel (Bot. Gaz. xviii. 253–256).

Description of new species in the genera *Ustilago*, *Puccinia* and *Uredo*.

Utricularia longifolia. (Gard. Chron. xiii. 718). With illustration of the above species, a native of British Guiana.

Variety of the Western Sumach—On a. W. L. Jepson (Erythea i. 40). Description of *Rhus trilobata*, Nutt. var. *quinata*, n. var.

Views of a working Botanist on the new American Rules of Nomenclature. J. W. Congdon (Zoë, iii. 339).

Weed Seeds found in Clover Seed—A Key for the Identification of. F. C. Stewart (Proc. Iowa Acad. Sci., 1892, 84–90, illustrated).

Yucca Insects and Yucca Pollination—Further Notes on. C. V. Riley (Proc. Biol. Soc. Wash., viii. 42), with illustration of *Yucca Whipplei.*

Zoospores in Spirogyra condensata. L. B. Bridgman (Erythea, i. 128).